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| 10/672,252 | 09/25/2003 | Daniel H. Craft | 07844-189002 | 8826 |
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| FISH & RICHARDSON P.C. P.O. Box 1022 MINNEAPOLIS, MN 55440-1022 | | | VAUTROT, DENNIS L | |
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DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,252

Applicant(s)

CRAFT ET AL.

Examiner

Dennis L. Vautrot

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2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-33 is/are allowed.
- 6) ☒ Claim(s) 34-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The applicants' amendment, filed 21 August 2006, has been received, entered into the record and considered.
2. As a result of the amendment, claims 43 and 44 have been amended. Claims 26 – 44 are pending in the application.

Response to Arguments

3. Applicant's arguments with respect to claims 34 - 44 have been considered but are moot in view of the new ground(s) of rejection. While the same reference is being used, the rejections are based on different reasoning.

Specification

4. The new abstract of the disclosure has been received and is accepted.

Double Patenting

5. The terminal disclaimer filed 21 August 2006 has been received and approved.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 34, 35, and 38-44 are rejected under 35 U.S.C. 102(b) as being anticipated by **Noyes** (US 5,878,406).

8. Regarding claim 34, **Noyes** teaches a computer program product tangibly stored on a computer-readable medium, the program comprising instructions operable to cause a computer to: establish a database of concepts [record structure], asset references [the items within the structure], and associations (See column 16, lines 33-40 “A ‘concept’ is represented as a complex record structure comprised of a Name (12a), Parents (12a), Children (12a), Interstrata (12q), and a Relationship List (12n). The Name is the name of the represented concept. The fundamental relationships are embodied in the list of parents, children, and interstrata. The relationship List stores the relationships maintained by the record. The order of these constituents within the record structure is arbitrary.” Also, relating this to FIG. 12, the concept is what is called “concept” as in (v), with the asset references being each element within the data structure – parents, children, etc. The association referred to in the claim, is not as described between the concepts, in FIG 71, but rather between the system concepts (73a) and the components (73c).); the asset references each comprising a storage

location identifier for a corresponding one of a plurality of data assets (See FIG. 12 item (k)), each association defining a type of relationship, from a plurality of types of relationships, between a data asset and a concept (See FIG 12, item (v) where it is shown that each of the asset references are components of the concept, with there being a component relationship between them. It is interpreted that there is a relationship between the system components and the data assets by virtue of the data assets being a member of the structure. Because the record (data asset) is stored according to the data structure (concept), this establishes a relationship between the data asset and concepts by storing specific segments of the data asset to a specific data structure, in the data structures.)

9. Regarding claim 35, **Noyes** teaches present to the user a location interface to receive location information from the user to locate a desired data asset; link that location interface to the database; receive from the user through the location interface [means for user interaction] a query identifying a concept and a relationship; use the query to search the database to identify a set of data assets each having the relationship with the concept; and present to the user [display] information identifying the data assets in the set. (See column 27, lines 56 – 61 “Step (78a) provides a means for editing the value of a relationship for a project concept. This step includes determining that a relationship identifying component concepts as potential values is stored in the component record that is the type of the project instance, or in the attribute record for the attribute characterizing the relationship to be edited.” And see column 27

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lines 64 - 65 "Step (78b) provides a means for user interaction so that the user can select a relevant option." And see column 28, lines 51 – 54 "Step 79b gets the value from the potential value relationship applicable to the current Attribute, and converts the reference numbers to appropriate icons for display for user selection.")

10. Regarding claim 38, **Noyes** teaches the instructions to use the query to identify a set of data assets include instructions to find each asset reference in the database having the relationship with the concept. (See column 28, lines 51 – 54 "Step 79b gets the value from the potential value relationship applicable to the current Attribute, and converts the reference numbers to appropriate icons for display for user selection.")

11. Regarding claim 39, **Noyes** teaches the instructions to use the query to identify a set of data assets include instructions to find each asset reference in the database having the relationship with the concept and each asset reference in the database having the relationship with a hierarchical descendent of the concept. (See column 17, lines 56-61 "The (12o) parents, (12p) children, and (12q) interstrata, are lists of reference numbers used to store the fundamental relationships of the Concept record. The (12o) Parents are used to store the reference numbers indicating the hierarchical progenitor within the abstraction stratum. The (12p) children are used to store the reference numbers indicating the hierarchical descendants within the abstraction stratum.")

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12. Regarding claim 40, **Noyes** teaches the relationships have a hierarchy specified by relationship hierarchy information; and the instructions to use the query to identify a set of data assets include instructions to find each asset referenced in the database having the relationship with the concept (See column 2, line 64 – column 3 line 2 “In this invention, the hypertext-like behavior is a consequence of the relationships stored at each record so that the view document has the feel of having hypertext implemented on a massive scale; every icon is a portal to all other view documents containing the concept and is also a portal to all related concepts.”) and each asset reference in the database having a hierarchical descendent of the relationship with the concept. (See column 17, lines 56-61 “The (12o) parents, (12p) children, and (12q) interstrata, are lists of reference numbers used to store the fundamental relationships of the Concept record. The (12o) Parents are used to store the reference numbers indicating the hierarchical progenitor within the abstraction stratum. The (12p) children are used to store the reference numbers indicating the hierarchical descendants within the abstraction stratum.”)

13. Regarding claim 41, **Noyes** teaches the instructions to receive from the user a query identifying a concept and a relationship include instructions to receive from the user a query further identifying a second concept and a second relationship; and wherein each data asset in the identified set of data assets having the relationship with the concept has the second relationship with the second concept. (See column 7, lines 46-49 “The representation of knowledge is based on the insight that knowledge is a

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network of concepts and relationships between concepts (i.e. the meaning of a concept is defined by its relationship to other concepts.” And see column 7, lines 56-59 “An effect of this system for Knowledge Representation is the creation of a massively cross-referenced database wherein the cross-referencing is the essence of the database instead of an adjunct or supplement thereto.”)

14. Regarding claim 42, **Noyes** teaches the instructions to establish a database of concepts, asset references, and associations include instructions to establish a database that further comprises detail associations, each detail association representing a relationship between a first and a second concept; the instructions to receive from the user a query that identifies a concept and a relationship includes instructions to receive from the user a query that further identifies a second concept and a second relationship, the second concept and second relationship representing a detail association; and the instructions to use the query to identify a set of data assets includes instructions to use the query to identify a set of data assets where each data asset in the identified set of data assets has a detail association comprising the second relationship between the concept and the second concept. (See column 7, lines 46-49 “The representation of knowledge is based on the insight that knowledge is a network of concepts and relationships between concepts (i.e. the meaning of a concept is defined by its relationship to other concepts.” And see column 7, lines 56-59 “An effect of this system for Knowledge Representation is the creation of a massively cross-referenced

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database wherein the cross-referencing is the essence of the database instead of an adjunct or supplement thereto.”)

15. Regarding claim 43, **Noyes** teaches a computer-readable media for storing a database for access by an application program, the database comprising:

one or more concepts that include links to one or more data assets that have specific relationships to an associated concept, where the relationships are selected from a plurality of possible relationships (See FIG 12, item (v) where it is shown that each of the asset references are components of the concept, with there being a component relationship between them. It is interpreted that there is a relationship between the system components and the data assets by virtue of the data assets being a member of the structure. Because the record (data asset) is stored according to the data structure (concept), this establishes a relationship between the data asset and concepts by storing specific segments of the data asset to a specific data structure, in the data structures.); and

where a concept describes the data asset the concept is linked to. (See FIG 12, item (v), which has the name of the concept included, which would describe the data asset.)

16. Regarding claim 44, **Noyes** teaches the computer-readable media of claim 43, wherein the relationships have a hierarchy specified by relationship hierarchy information. (See column 13, lines 51-54 and lines 57-63 “A result of the system

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concepts and the fundamental relationships is that the knowledge representation has a structure that may be visualized as a tree structured hierarchy... Note that the interstrata relationships in the tree structured hierarchies of FIG. 7 have specific meanings: the organizing principle of the Attribute and Component strata can be thought of as (7a) taxonomy (i.e. Class and Subclass); while the organizing principle of the Project stratum can be thought of as (7b) composition (i.e. structure and substructure).")

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Noyes** as applied to claim 35 above; and further in view of **Goiffon** (US 6,327,593).

19. Regarding claim 36, **Noyes** teaches a computer program product substantially as claimed. **Noyes** fails to teach receive search information from the database identifying concepts and relationships that can be searched; and display the search information to the user through a query interface that allows the user to define the query. However **Goiffon** teaches receive search information from the database identifying concepts and

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relationships that can be searched; and display the search information to the user through a query interface that allows the user to define the query. (See column 14, lines 16-21 and lines 26-27 "Concept elements are further located using the character strings specified in Block 700. Search expansions may be performed, if selected by the user in Boxes..., to include concepts related to those located concepts. This will cause additional concept elements to be located for purposes of the search...After the search is completed, the located asset elements are shown in Window 730.") It would have been obvious to one with ordinary skill in the art to have the searchable concepts and relationships displayed to the user in order to facilitate advanced queries more efficiently. It is for this reason that one of ordinary skill in the art would have been motivated to receive search information from the database identifying concepts and relationships that can be searched; and display the search information to the user through a query interface that allows the user to define the query.

20. Regarding claim 37, **Noyes** teaches a computer program product substantially as claimed. **Noyes** fails to teach receive a selection from the user of a desired data asset from among the identified data assets; and return to an application a file handle for the desired data asset. However, **Goiffon** teaches receive a selection from the user of a desired data asset from among the identified data assets; and return to an application a file handle for the desired data asset. (See column 14, lines 16-21 and 34-38 and 41-43 "For the specified word "Account" shown in Block 702, the asset element "CustAccount" is shown in Window 730. This display includes asset element name "CustAccount", and

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further includes the type of asset element, which in this case is 'Oracle Table'...In the manner described above, the user may perform multiple search iterations by selecting different query terms...then reselecting the "Search function...After each iteration, any located asset elements are shown...Asset elements located during the search are stored in the Results Stack.") It would have been obvious to one with ordinary skill in the art allow the user to choose which asset to access and respond with the file handle for locating the asset because the file handle is necessary for locating the asset. Without the file handle, the entire asset would have to be present, rather than just a pointer to the asset, as occurs in **Goiffon**. It is for this reason that one of ordinary skill in the art would have been motivated to receive a selection from the user of a desired data asset from among the identified data assets; and return to an application a file handle for the desired data asset.

Allowable Subject Matter

21. Claims 26 – 33 are allowed.

22. The following is a statement of reasons for the indication of allowable subject matter:

The claimed invention of claim 26 is directed to a computer program product tangibly stored on a computer readable medium to present a user storage interface to receive location information from the user to identify a storage location identifier for a data asset to be saved.

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With respect to independent claim 26, the prior art of record, single or in combination, does not teach or fairly suggest the particular step “link the storage interface to a searchable tag database of concept data elements, asset references, and associations, the concept data elements each representing a concept and having a hierarchy specified by concept hierarchy information, the asset references each comprising a storage location identifier for a corresponding one of a plurality of data assets, and the associations representing different types of relations between one of the plurality of concepts represented by concept data elements”)

The dependent claims 27 - 33 depending on claim 26 are also distinct from the prior art for the same reason.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dv
31 October 2006


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